

Application No. 09/885568
Page 2

Amendment
Attorney Docket No. S63.2B-9515-US01

Amendments To The Claims:

Please cancel claim 15.

1. (Currently Amended) A balloon for a medical device comprising:
a semi-compliant polymer matrix material; and
a plurality of fibers distributed in the matrix material to provide reinforcement thereof,
the fibers being distributed in a selected direction relative to the balloon axis and composed of
material which has a greater tensile strength than the matrix material.

2. (Original) A balloon as in claim 1 wherein the fibers are distributed in the matrix material
helically relative to the balloon axis.

3. (Original) A balloon as in claim 2 wherein said fibers are cores of polymeric material
coextruded with the matrix polymer material.

4. (Original) A balloon as in claim 2 wherein the bulk elongation core polymeric material is
150% or less.

5. (Original) A balloon as in claim 2 wherein the core polymeric material has a bulk elongation
less than the matrix material when oriented in the direction of the longitudinal axis.

6. (Original) A balloon as in claim 1, the balloon having a wall composed of a plurality of
laminate layers, at least one layer of which comprises said polymer matrix material and said
fibers.

7. (Original) A balloon as in claim 6 wherein said laminate layers comprise an alternating series
of fiber-containing and fiber-free layers.

8. (Original) A balloon as in claim 7 having at least 7 of said laminate layers.

9. (Original) A balloon as in claim 6 wherein the fibers are distributed in the matrix material
helically relative to the balloon axis.

10. (Original) A balloon as in claim 9 wherein said fibers are cores of polymeric material
coextruded with the matrix polymer material.

11. (Original) A balloon as in claim 9 wherein said fibers are LCP fibers having a diameter of
from 0.01 to about 10 microns.

Application No. 09/885568
Page 3

Amendment
Attorney Docket No. S63.2B-9515-US01

12. (Original) A balloon as in claim 6 having a body portion wherein the fibers are oriented substantially parallel to the longitudinal axis of the balloon.

13. (Original) A balloon as in claim 12 wherein the fibers are LCP fibers having a diameter of from 0.01 to about 10 microns.

14. (Currently amended) A balloon for a medical device comprising from 7 to 50 laminate layers of polymer material total polymer layers alternating between layers composed of a compliant or semi-compliant polymer material and layers composed of a compliant or semi-compliant matrix polymer material and LCP.

15. (Canceled)

16. (Original) A balloon as in claim 15 14 wherein the single polymer material and the matrix polymer material are the same.

17. (Original) A balloon as in claim 15 14 wherein the single polymer material is a compliant or semi-compliant polymer material.

18. (Original) A balloon as in claim 15 14 wherein the ratio A/B of the total thickness of the two types of layers, (A) and (B) respectively, is from about 5 to about 15.

19. (Original) A balloon as in claim 18 wherein said ratio is from 8 to 10.

20. (Original) A balloon as in claim 15 14 wherein in the layers (B) the LCP polymer is present in the blend in an amount of from about 5 to about 25 % by weight.

21. (Original) A balloon as in claim 14, wherein the balloon has a longitudinal axis, at least some of said laminate layers are formed from an extruded blend of a matrix polymer material and an LCP polymer material, and the LCP polymer forming fibers within the matrix polymer with the fibers oriented substantially in a longitudinal or helical direction relative to the balloon axis.

21 22. (Previously Presented) A balloon as in claim 14 comprising alternating laminate layers of (A) a material selected from the group consisting of compliant and semi-compliant polymers and (B) a material formed from a blend of an LCP polymer with a material selected from the group consisting of compliant and semi-compliant polymers.

22 23. (Previously Presented) A balloon as in claim 21 wherein in said layers (A) and (B) said material selected from the group consisting of compliant and semi-compliant polymers is a member of the group consisting of polyamides and block copolymers comprising polyamide

Application No. 09/885568
Page 4

Amendment
Attorney Docket No. S63.2B-9515-US01

blocks and polyether blocks.